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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,694	12/05/2001	Alan Shi	210703	7053

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EXAMINER

LAO, SUE X

ART UNIT PAPER NUMBER

2194

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/010,694

Applicant(s)

SHI ET AL.

Examiner

S. Lao

Art Unit

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-25, 29-43 is/are rejected.  
7) ☒ Claim(s) 26-28 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-43 are presented for examination. This action is in response to the preliminary amendment filed 3/11/2003. Applicant has added claims 29-43.

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 1-15, 19-24, 29-42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The language of independent claims 1-15, 19-24, 29-42 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a useful, concrete and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Independent claims 1, 19, 22 and 29 do not appear to require any computer hardware to implement the claimed invention. These claims appear to define the metes and bounds of an invention comprised of software alone. There is no support (i.e., explicitly claimed computer hardware) in the body of the claims. Software alone, without a machine, is incapable of transforming any physical subject matter by chemical, electrical, or mechanical acts. If the "acts" of a claimed process manipulate only

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numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. In re Schrader, 22 F.3d 290 at 294-95, 30 USPQ2d 1455 at 1458-59 (Fed. Cir. 1994). Transformation of data by a machine constitutes statutory subject matter if the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106. State Street required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, State Street does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. State Street, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claims 1-15, 19-24, 29-42 are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of software alone without claiming associated computer hardware required for execution, is not supported by either a specific and substantial asserted utility (i.e., transformation of data) or a well established utility (i.e., a practical application).

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-15, 19-24, 29-42 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-15, 19-24, 29-42 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are computer hardware necessary to execute the claimed software and render the invention operative.

9. Claims 17, 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites "the application" in line 2. There is insufficient antecedent basis for this limitation in the claim.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-14, 16, 17, 19-23, 30-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saboff et al (U S Pat. 6,202,205).

As to claim 16, Saboff teaches steps of:

recording assembly bind information (record version information of implementation library in registry);

determining if the assembly bind information should be persisted in an assembly bind history file (check if current version recorded in registry); and

persisting the assembly bind information in the assembly bind history file when the step of determining is affirmative (update to a new version). See col. 5, lines 3-42; col. 6, lines 12-20; col. 8, line 23 – col. 9, line 15.

Recording the above process steps onto a computer-readable medium having computer-executable instructions for performing such steps would have been obvious.

As to claim 29, Saboff teaches a method of persisting assembly bind information for an application, comprising the steps of: recording assembly bind request information (record each of multiple versions in registry); recording assembly redirect information (select desired version) resulting from an application of assembly binding policy (rule met); and storing the assembly bind request information and the assembly redirect information in the assembly bind history file (It is noted that both versions and rules are recorded in registry). See col. 8, line 23 – col. 9, line 15; col. 9, line 53 – col. 10, line 8. it is noted that storing in registry would have provided persistence.

As to claim 1, Saboff teaches a method of persisting assembly bind information for an application, comprising the steps of: recording assembly bind request information (record each of multiple versions in registry); recording assembly redirect information (select desired version) resulting from an application of assembly binding policy (rule met); determining if the assembly bind request information and the assembly redirect information should be persisted in an assembly bind history file (check if current version recorded in registry); and storing the assembly bind request information and the assembly redirect information in the assembly bind history file when the step of determining is affirmative (It is noted that both versions and rules are recorded in registry). See col. 5, lines 3-42; col. 6, lines 12-20; col. 8, line 23 – col. 9, line 15; col. 9, line 53 – col. 10, line 8. it is noted that storing in registry would have provided persistence.

As to claim 19, Saboff teaches a data structure (registry data structure, fig. 16, 14), comprising a first data field containing version data (version field) relating to an assembly bind of an application (application library version), a second data field containing assembly name data for assembly for which the application completed a bind request (ID, service fields); and a third data field associated with the second data field

containing assembly bind information for each stage of assembly bind policy (prerequisite field which describes a particular incremental stage of update). Col. 12, line 66 – col. 14, line 17. It would have been obvious to use temporal data to implement the version data because time stamps are typical versioning parameters.

As to claims 22, 43, Saboff teaches a method of reconfiguring assembly binds for an application, comprising the steps of: using an assembly bind history file (in registry 38) for the application containing information of assembly binds from a previous execution of the application having at least one assembly bind that differs from a current assembly bind (older binding version); reconfiguring an assembly bind policy to ensure (so that after updating, library can be restored to old state) binding with the assembly binds contained in the assembly bind history file (new version). Col. 5, lines 3-15. Retrieving would have been obvious before the bind information can be used/processed.

As to claims 2, 3, Saboff teaches recording assembly redirect information for each bind redirection at each level of bind policy redirection (fig. 15), and for all assemblies (fig. 14) (see fig.s 14, 15 and denoting text).

As to claim 4, Soboff teaches determining if the bind history file is currently being persisted for the application based on a prior assembly bind (Col. 5, lines 3-15; col. 6, lines 13-20).

As to claim 5, Soboff teaches determining that no previous bind history file exists, and storing the assembly bind request information and the assembly redirect information in an in-memory data structure (registry) until application shutdown (Col. 5, lines 3-15; col. 8, line 23 – col. 9, line 15).

As to claims 6, 9, Soboff teaches determining that additional assembly bind request information and assembly redirect information for another assembly bind by the application is stored in memory (respective optimized versions, fig. 24), and persisting the additional assembly bind request information and assembly redirect information for the another assembly bind in the assembly bind history file (store in registry) (col. 19, lines 18-31).

As to claim 7, Soboff teaches determining that a previous bind history file exists, determining that no difference exists between the previous bind history file and the assembly bind request information and the assembly redirect information, and wherein the step of persisting comprises the step of storing the assembly bind request information and the assembly redirect information in an in-memory data structure (Col. 5, lines 3-15; col. 8, line 23 – col. 9, line 15).

As to claim 8, Soboff teaches the step of determining if the assembly bind request information and the assembly redirect information should be persisted further comprises the steps of determining that a previous bind history file exists, and determining that a difference exists between the previous bind history file and the assembly bind request information and the assembly redirect information (Col. 5, lines 3-15).

As to claims 10, 11, note discussion of claim 19 for recording temporal information for the assembly bind. Sorting/indexing a assembly bind history file by the temporal information would have been obvious in view of conventional file management techniques (such as sorting by date).

As to claims 12, 13, Soboff teaches associating the assembly bind history file with user information, storing the assembly bind history file in a non-roaming user-profile directory (fig. 8, col. 15, line 40 – col. 16, line 18).

As to claims 14, 17, Saboff teaches retrieving the assembly bind history file, and binding all assemblies for the application in accordance with the assembly bind history file (col. 19, lines 18-31).

As to claims 20, 21, Saboff teaches the second and the third data field for each assembly (for versions A, B) for which a bind request is made by the application (col. 19, lines 18-31), fourth data structure containing data identifying the application (application ID, fig. 8).

As to claim 23, it is covered by claim 22 except for prior execution which is met by Saboff (old version). Col. 5, lines 3-15.

As to claims 30, 31, 33, 34, Saboff teaches recording a predetermined set of one or more assembly binds for the application that were originally intended (fig. 24, col. 19,



lines 18-31). Such intension provided by a publisher / developer of the application would have been obvious because the system of Saboff is a development environment.

As to claims 32, 35, Saboff teaches recording a predetermined set of one or more assembly binds for the application that are known to safely operate with the application (rules, col. 9, line 53 – col. 10, line 8).

As to claim 36, 39, 40, Saboff teaches uniquely identifying the assembly bind request information and the assembly redirect information in the assembly bind history file (fig. 16, 513), with at least one of name, version, public key token, and culture (fig. 16, 513), with a combination of name, version, public key token, and culture (fig. 16, 513, 502, 508).

As to claim 41, Saboff teaches the assembly bind request information and the assembly redirect information in the assembly bind history file are sharable in that it is implemented in a system registry.

As to claims 37, 38, 42, software libraries are intellectual properties typically protected by security and/or access control. Cryptographic signature, strong name and private key are typical software security/access control measures. Therefore, it would have been obvious to include such software security measures into Saboff to protect the libraries/files and the associated management routines.

12. Claims 15, 18, 24, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saboff et al (U S Pat. 6,202,205) as applied to claims 14, 17, 23 in view of Shoumura et al (U S Pat. 5,878,262).

As to claim 25, Saboff teaches applications having at least one assembly bind history file (fig. 24, and hierarchy registry 758).

Saboff does not teaches a computer system having a graphical user interface including a display and a user interface selection device, a method of providing and selecting from a menu on the display, comprising the steps of retrieving a listing of such applications, and displaying the listing on the display for user selection.

Shoumu teaches a computer system having a graphical user interface including a display and a user interface selection device (inherent to Shoumura), a method of

providing and selecting from a menu on the display and displaying the listing on the display for user selection (highlight) (fig.s 21, 30, 39, and denoting text). Retrieving the applications would have been obvious for display. Given the teaching of Shoumura, it would have been obvious to include a user interface service into Saboff. One of ordinary skill in the art would have been motivated to combine the teachings of Saboff and Shoumura because this would have provided integrated development management (Shoumura, col. 2, lines 51-61).

As to claims 15, 18, Saboff teaches a plurality of assembly bind history files are persisted (registry), retrieving all of the plurality of assembly bind history files, and binding all assemblies for the application in accordance with the one of the plurality of assembly bind history files (col. 5, lines 3-42; col. 19, lines 18-31).

Saboff does not teach receiving a user selection of one of the plurality of assembly bind history files. Shoumura teaches receiving a user selection of one of the plurality of assembly bind history files (user highlighting) (fig.s 21, 30, 39, and denoting text). Therefore, it would have been obvious to include a user selection into Saboff. Note discussion of claim 25 for a motivation to combine.

As to claim 24, it is covered by claim 22, step reconfiguring except for selecting which is met by Shoumura, as discussed for claim 25. Note discussion of claim 25 for a motivation to combine.

13. Claims 26-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A voice mail service is also available at this number. The examiner's supervisor, SPE

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Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 18, 2005



**SUE LAO**  
**PRIMARY EXAMINER**